SURREBUTTAL TESTIMONY OF KENNETH SERCY

ON BEHALF OF THE SOUTHERN ALLIANCE FOR CLEAN ENERGY AND SOUTH CAROLINA COASTAL CONSERVATION LEAGUE

DOCKET NO. 2021-88-E

Q. PLEASE STATE YOUR NAME, OCCUPATION, AND BUSINESS ADDRESS.

A. My name is Kenneth Sercy. I am an independent electric sector consultant, and my business address is 9042 East 24th Place #102, Denver CO 80238.

Q. ON WHOSE BEHALF ARE YOU PROVIDING TESTIMONY?

A. I am providing testimony on behalf of the South Carolina Coastal Conservation League ("CCL") and the Southern Alliance for Clean Energy ("SACE").

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. The purpose of my testimony is to respond to the Report prepared by London Economics International, LLC ("LEI") on Dominion Energy South Carolina's ("DESC") 2021 avoided cost application. My testimony is focused on two issues in particular: (1) natural gas price forecasts and (2) seasonal allocation of capacity value under the technology neutral rates, and specifically its impact on standalone solar.

Q. PLEASE SUMMARIZE LEI'S OPINION ON DESC'S NATURAL GAS PRICE FORECAST METHODOLOGY AND RESULTS.

A. LEI finds my recommendations for long-term natural gas prices to be reasonable, noting that its own long-term gas price outlook it relied on for its report to the Commission "aligns with the approach recommended by Mr. Sercy."[1] However, LEI also observed,

[1] LEI Report at 43.

when comparing my approach to DESC's, that "it is possible to defend either position." LEI goes on to conclude that because DESC's results fall within the range of the different cases in the 2021 AEO, DESC's price outlook is within a reasonable range of potential outcomes.

Notably, the LEI report's Figure 12 illustrates that among the gas price forecasts of DESC, LEI, and Sercy, the forecast that "falls within the range of the various cases provided in the EIA's 2021 AEO" for the longest period is the Sercy forecast.[2]

Q. DO YOU STILL HAVE CONCERNS ABOUT DESC'S APPROACH?

A. Yes. I remain concerned that DESC's natural gas price forecast methodology and results will produce inaccurate and unreasonable avoided costs for the same reasons stated in my direct[3] and surrebuttal testimony.[4] Significantly, the Commission already rejected DESC's approach in DESC's 2020 IRP proceeding in favor of the approach I am currently recommending.[5] There is no reason for DESC to depart from the Commission-approved methodology used in its 2020 IRP when calculating its 2021 avoided cost rates.

I would also like to further emphasize how deeply dependent DESC's methodology is on the particular NYMEX price samples used, and specifically in this case the 2023 prices. In fact, the movements that have occurred in natural gas futures prices in just the past few months during this proceeding illustrate the effects of this dependency on DESC's approach.

[2] LEI Report at 42.
[3] Sercy direct testimony at 7-9.
[4] Sercy surrebuttal testimony at 2-4.
[5] As cited in Sercy direct at 8, footnote 11, Commission Order No. 2020-832 at 70-71, Docket No. 2019-226-E (Dec. 23, 2020).

Q. HOW HAVE GAS FUTURES PRICES CHANGED THIS YEAR, AND HOW DOES THIS IMPACT DESC'S PRICE FORECAST?

A. Since DESC sampled NYMEX gas futures prices earlier this year, those prices have risen dramatically, with 2022 futures rising by 55% and 2023 futures rising by 31%. Table 1 below shows the 2022-2023 futures prices used in DESC's forecast alongside NYMEX prices sampled on September 29, 2021, as well as the percent difference.

Table 1: NYMEX Henry Hub Futures Prices ($/mmbtu)[6]

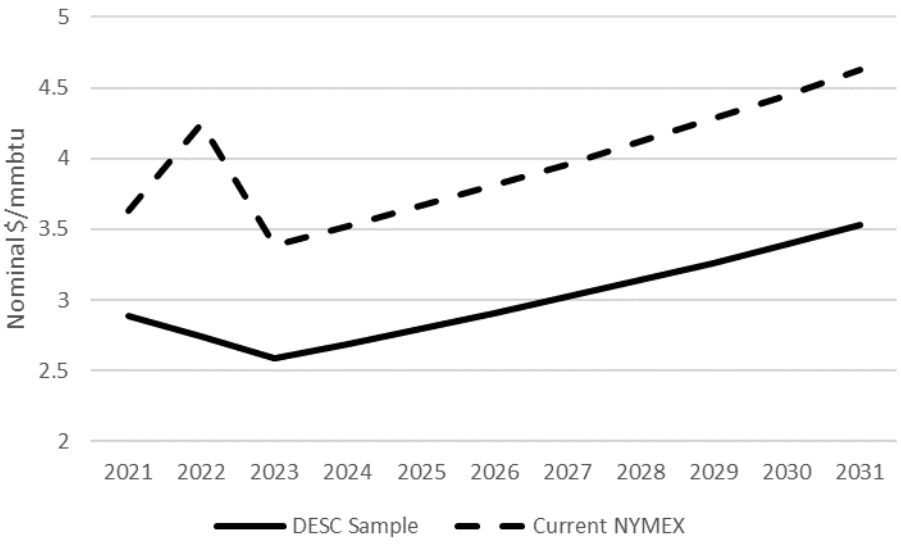
Year	DESC Sample	NYMEX as of 9/29/21	% Difference
2022	$2.74	$4.25	55%
2023	$2.59	$3.39	31%

Further, Figure 1 below shows the full long-term gas price forecast using DESC's methodology, for both sets of NYMEX prices.[7] The figure shows that the differing prices in the initial years result in a considerably altered long-term price forecast. In fact, using current NYMEX prices, DESC's methodology actually results in higher gas prices than I recommended in my direct and surrebuttal testimony. The reason is that mathematically, applying an escalation rate to an initial price point places tremendous importance on that initial price in terms of the rest of the forecast.

Figure 1: DESC Natural Gas Forecasts Using DESC Sample and Current NYMEX

[6] NYMEX prices as of 9/29/21 sourced from S&P Global Market Intelligence. 2021. Natural Gas Forwards and Futures. https://www.spglobal.com/marketintelligence/en/. Accessed September 29, 2021.

[7] In the Current NYMEX forecast shown in Figure 1, I use the most recent EIA Short Term Energy Outlook natural gas price average for 2021, since most of 2021 is now past and we know what actual gas prices were. In any case, as alluded to above, in DESC's methodology it is the assumed 2023 price that plays the critical role for the rest of the forecast, and as such is the most important price point to update in a refresh of DESC's forecast methodology.



Q. WHAT ARE YOUR CONCLUSIONS AND RECOMMENDATIONS ON THE NATURAL GAS PRICE FORECASTS USED IN DESC'S AVOIDED ENERGY RATE CALCULATIONS?

A. For all the reasons previously stated in my direct and surrebuttal testimony, my natural gas price forecast methodology yields a more reasonable set of price inputs for avoided energy rate calculations. LEI's own analysis used the same approach I recommended for prices beyond year 2023. As such, I would like to reiterate my previous recommendation to use the same approach the Commission recently approved in DESC's 2020 IRP proceeding, and consistent with my direct and surrebuttal testimony in this proceeding.

Q: DO YOU HAVE ANY FINAL RECOMMENDATIONS REGARDING NATURAL GAS FORECASTS?

Yes. Given the significant rise in NYMEX futures prices over the summer and fall of this year, the Commission should require the final avoided energy rates to incorporate the latest updated NYMEX prices. The recent price changes would have implications under

either approach, but this refresh is most significant under DESC's proposed methodology because, as described above, changes to the 2023 NYMEX futures price input have the effect of significantly changing the forecasted prices in years 2024-2031. Given the recent futures price increases, DESC would need to re-sample the NYMEX futures prices that are so crucial to its approach under its assertion that its forecast "better represents the expected gas prices at the time of the avoided cost calculation because it is created based on current factors."[8]

Q. PLEASE SUMMARIZE LEI'S OPINION AND RECOMMENDATIONS ON TECHNOLOGY NEUTRALITY AND SEASONAL ALLOCATION OF AVOIDED CAPACITY RATES.

A. LEI recommends making a single technology neutral capacity rate available to all QFs, reasoning in part that "a resource's capability to deliver capacity when required should determine its payment regardless of technology type."[9] LEI further specifies that there should be no separate solar-specific capacity rates.

Regarding seasonal allocation, LEI concluded that "it appears that, as DESC notes, winter reserve margin requirements are driving differentiation in the avoided cost change case."[10] However, LEI added that "as it is possible DESC's capacity allocation window may be overly narrow seasonally, LEI would recommend that going forward DESC assess the value of summer capacity, and provide more clarity and data substantiation on why it believes summer capacity has little to no value should it reach that conclusion."[11]

[8] LEI Report at 41 (quoting Mr. Neely).
[9] *Id.* at 36.
[10] *Id.*
[11] *Id.* at 37.

Q. HOW DO LEI'S RECOMMENDATIONS ALIGN WITH YOUR RECOMMENDATION?

A. We agree that all QFs, including standalone solar, should have access to the technology neutral capacity rates. However, regarding seasonal allocation, LEI recommends that DESC provide more substantive analysis in future proceedings regarding summer capacity value, while I make a recommendation to improve DESC's seasonal allocation in the current proceeding.

Q. WHY IS IT IMPORTANT TO ADDRESS SEASONAL ALLOCATION IN THIS PROCEEDING INSTEAD OF WAITING FOR ADDITIONAL ANALYSIS IN THE NEXT PROCEEDING?

A. Under its current proposal, DESC limits capacity payments in the technology neutral capacity rate to a three-hour winter morning window in which there is little to no solar production. Thus, the practical implication of offering technology neutral capacity rates to all QFs while delaying corrections to the seasonal allocation is that standalone solar QFs are likely to receive little if any compensation for their capacity contributions to the grid, ultimately discouraging solar QF development.

Q: PLEASE EXPLAIN WHY THIS IS PROBLEMATIC.

A: Failing to correct DESC's seasonal allocation under its technology neutral capacity rate in this proceeding is problematic because it does not account for the capacity value that solar QFs provide the grid. Though standalone solar QFs will not receive capacity payments for winter mornings, these QFs can and do provide capacity value in other times of the year. Even under DESC's proposed standalone solar capacity rates, which provide a capacity credit at 5%, solar-only QFs would receive some capacity payment for their

production throughout the year.[12] LEI's recommendation to adopt the technology neutral capacity rate without correcting for seasonal allocation would reduce capacity payments for standalone solar QFs below DESC's proposal, and undervalue solar QFs to an even greater degree.

Q. DO YOU VIEW THIS AS A REASONABLE OUTCOME FOR DESC'S 2021 AVOIDED COST RATES AND TARIFFS?

A. No. I agree with LEI that standalone solar QFs should have access to the technology neutral capacity rate.[13] However, use of a reasonable seasonal allocation is critical to ensuring that DESC's avoided capacity rates fully reflect the utility's avoided costs as required by Act 62. My recommendation to use the technology neutral capacity rate while also correcting the seasonal allocation is consistent with both Act 62 and the Commission's order in the 2019 avoided cost proceeding, as I discuss further below.

Q: PLEASE EXPLAIN WHY YOUR SEASONAL ALLOCATION RECOMMENDATION SHOULD BE ADOPTED IN THIS PROCEEDING.

A. The seasonal allocation approach and results presented in my direct testimony[14] use historical data from DESC's system to account for the load patterns in the Company's service territory, capturing the primary driver of capacity need, while also accounting for the effect of the existing solar capacity already interconnected to DESC's grid. I noted that my calculations derive a seasonal allocation using the magnitude of the top 1% net load hours, which has the effect of giving extra weight to the winter season. I also allocated the top 1% net load hours that occurred during shoulder months into the winter season, further

[12] As I describe in my direct testimony at 22-27, DESC's 5% standalone solar capacity credit is most likely artificially low due to how it implemented the ELCC method.
[13] Sercy direct at 31.
[14] Sercy direct at 29-30.

weighting the winter over the summer. This is a reasonable means of accounting for the greater demand-side risk that DESC claims to have in winter morning hours, and that is also reflected in DESC's higher winter reserve margin.

In contrast, DESC fails to offer any substantive support for its proposal to allocate zero capacity value to summer months. Instead, DESC asserts that additional summer capacity does not avoid any future capacity costs because of the existing solar on its system and a higher reserve margin in the winter than summer. Yet this Commission dismissed these same arguments in DESC's 2019 avoided cost proceeding.[15] In that proceeding, the Commission found that the "need for capacity is not a simple comparison of summer versus winter capacity need, but rather capacity needs over the whole year."[16] The Commission concluded that "DESC's position that incremental energy supplied by solar QF facilities will not allow it to avoid any future capacity is not reasonable."[17]

In conclusion, while I support LEI's recommendation for additional analysis on this topic in future proceedings, I do not think it is reasonable to adopt DESC's seasonal allocation in the current proceeding. Instead, I continue to recommend the Commission adopt the seasonal allocation proposal in my direct testimony as the most reasonable approach on the record. My proposal is substantiated by year-round load data and is consistent with the Commission's 2019 order and Act 62. It is also worth reiterating that under my proposal, the example standalone solar QF I highlighted in my direct testimony would receive a 19% capacity credit, which is materially higher yet still only an

[15] *See* Order 2019-847 at 31-36 and Order 2020-244 at 9-11. Specifically, even after considering DESC's projections that winter peaks would be higher than summer peaks, that winter reserve margin needs are 21% versus 14% for the summer season, and that 1,048 MW of solar PPAs had been executed at that point, the Commission disagreed with DESC's assertion that additional solar has no capacity value.
[16] Order 2019-847 at 35.
[17] *Id*. at 35.

incremental increase relative to the 5% credit DESC itself has proposed for standalone solar QFs. That increase is well supported by the high levels of system stress that DESC's grid experiences during summer months, which DESC's proposed seasonal allocation ignores.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes.

BEFORE

THE PUBLIC SERVICE COMMISSION OF

SOUTH CAROLINA

DOCKET NO. 2021-88-E

In Re: Dominion Energy South Carolina, Incorporated's 2021 Avoided Cost Proceeding Pursuant to S.C. Code Ann. Section 58-41-20(A)	))))))	**CERTIFICATE OF SERVICE**

I hereby certify that the parties listed below have been served via first class U.S. Mail or electronic mail with a copy of the *Responsive Testimonyof Kenneth Sercy* on behalf of the South Carolina Coastal Conservation League and Southern Alliance for Clean Energy.

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This 8th day of October, 2021.

s/*Emma Clancy*